



# LOCATION-BASED SERVICES & ASSESSMENT

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CREATING THE NEXT®



# AGENDA



- Location-based services
- Designing a survey
- Enticing stakeholders and collaborators with assessment data
- Designing an app
- The future!

# LOCATION-BASED SERVICES: CONSUMER FACING



HTML5 Geolocation API – IP address, cell tower triangulation, GPS, Wi-Fi nodes, and more



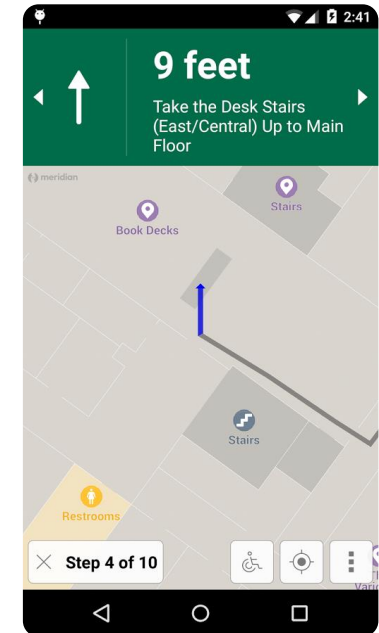
Intelligent Mail barcode scanning, RFID, and GPS



GPS & Google Maps API – cell tower triangulation and Wi-Fi nodes

# LBS AND MOBILE DEVICES IN ACADEMIC LIBRARIES

- NSCU – WolfWalk
- Urbana Champaign – Minrva
- Brooklyn Museum – Ask
- University of Oklahoma – NavApp



# LIBRARY NEXT AND ITS CHALLENGES



Price Gilbert and Crosland renovations  
and Roving staff



Remote print collection and rising  
gadget checkout



Decline of traditional reference and rise of instruction



## Collecting data from sensing equipment

- Specific internal location of users – wireless network triangulation
- Use of furniture and equipment – RFID signaling
- Number of users in a room – infrared signaling


## Collecting data from the app

- Demographic information tied to log-in credentials
- Facilities issues and response times
- Contextually specific use of app
- Staff/faculty interactions with user

# SURVEY DESIGN COMPONENTS



# SURVEY RESULTS

- 31 responses or 3% response rate 
- Undergraduate and graduate students struggle with finding a place to study
- Graduate students want to track the location of requested items
- Preferences around notifications are ambiguous
- Reservations of books and computers popular across status categories



# LOW RESPONSE RATES

## Likely causes

- GT Library beginning to emerge as campus leader
- Survey fatigue from continuous improvement efforts from the GT Library

## Unlikely causes

- Too many questions
- Spam filters

## Ways to improve

- Target the survey to specific groups and pursue them
- Wait a year or so to redeploy the survey without IRB approval (for internal use only)
- Offer reward lottery for participation

# HOW TO USE LIMITED RESPONSES

- Respect the insights and limitations of the survey
- Integrate other sources of data and information
- Note the successes of peer institutions
  - Minrva – 1000+ Android installations
  - NavApp – 500+ Android installations

 **Request a Gadget**



 **retroTECH**



## Potential developers

- GTRI Electro Optical Sensing Lab
  - Internal building use for predictive modeling for first responders and other clients
- IPAT & RNOC
  - Smart Cities
  - Extending student work
- Cytilife
  - Extension of existing services
  - Improve models

## Potential future collaborators

- Parking and Transit Services
  - Assessing parking, traffic, and egress
- Campus safety
  - First response to incidents
- Registrar
  - Campus space use

# ENTICING LIBRARY STAKEHOLDERS WITH DATA



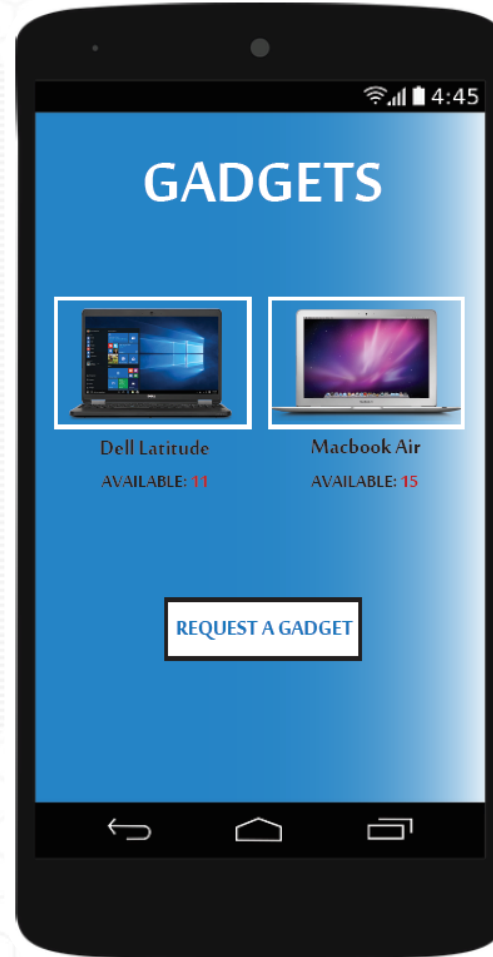
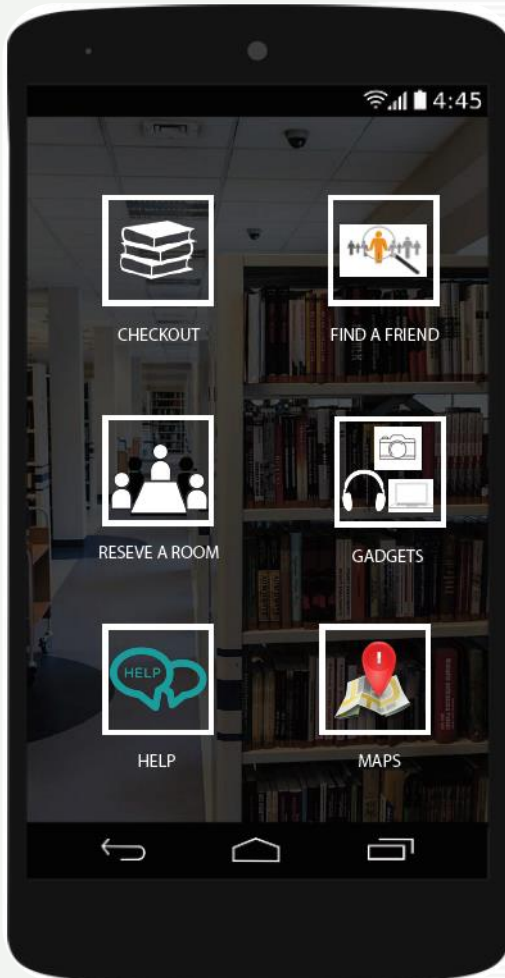
- Public Services
- Campus Engagement and Scholarly Outreach
- Library Facilities
- Fulfillment services from the Library Service Center
- Assessment

# USING ASSESSMENT TO DESIGN THE APP





# ASSESSING THE APP, ASSESSING OURSELVES





My apps

Shop

Games

Family

Editors' Choice

Apps



Georgia Tech Game  
IMG College Digital



FREE



Georgia Tech  
SungKim



FREE



GT Buses  
Siddu Duddikunta



FREE



Georgia Tech Guidebook  
Guidebook Inc



FREE



Georgia Tech  
GaTech Communication



FREE



T-Square for Georgia  
Plutonium Apps



FREE



GT NextBus  
Joel Anderson



FREE



Georgia Tech Books  
Barnes & Noble College



FREE



GT Maps  
Hegemony Software



FREE



GT Mobile  
Georgia Tech Research



FREE

Account

Redeem

Buy gift card

My wishlist

My Play activity

Parent Guide

## Are location-based services and mobile devices a good match for my library?



- What problems are we solving? What information are we lacking?
- What are our existing mobile services?
  - Bounce rate and other metrics
- How much money can we spend?
- Who can we partner with?

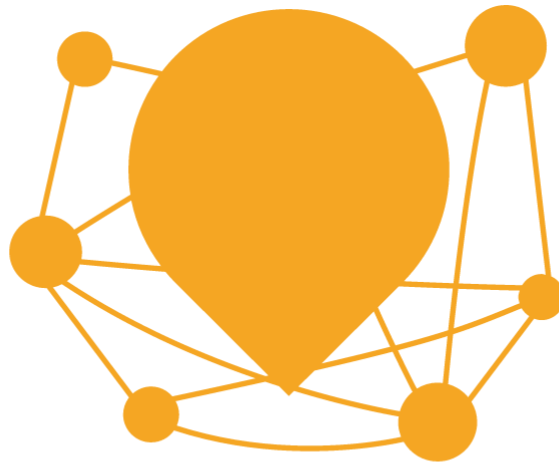
# WRAP-UP AND THE FUTURE



Machine learning and AI



Seamless checkout



Full campus integration

## CONTACT



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